

CLAIMS

1. A computer network comprising:

a network-attached storage appliance generating data packets and transmitting the generated data packets to the computer network, the data packets being generated by packetizing a file, the file having one or more associated file attributes, the network-attached storage appliance inserting a network-attached storage content descriptor in each generated data packet, the content descriptor identifying one or more of the associated file attributes; and

a multiport network device receiving the generated data packets, the multiport network device being configured to process the received data packets according to the content descriptor, the multiport network device processing the received data packets at wire speed.

2. The method of claim 1, wherein the one or more file attributes comprise one or more of file name, file extension, file size, and data format stored in the file.

3. The computer network of claim 1, wherein:

the multiport network device is configured by a user to process the received data packets according to the content descriptor.

4. The computer network of claim 1, wherein:

the multiport network device determines the content descriptor to be inserted by the network-attached storage appliance for the identified content type.

5. The computer network of claim 4, wherein:

a mapping table is stored on the multiport network device, the mapping table identifying one or more file attributes, the mapping table providing the content descriptor to be inserted by the network-attached storage appliance for each of the identified file attributes, the mapping table being transmitted to the network-attached storage appliance, the network-attached storage appliance inserting the content descriptors provided by the mapping table.

6. The computer network of claim 1, wherein processing the data packets at the multiport network device comprises selecting one of a plurality of network actions.

7. The computer network of claim 6, wherein processing the data packets at the multiport network device comprises allocating network bandwidth to the received data packets and monitoring the data packets received at the multiport network device.

8. The computer network of claim 6, wherein:

the multiport network device is configured to process the data packets by blocking data packets from utilizing the computer network, redirecting blocked data packets, and logging blocked data packets.

9. The computer network of claim 6, wherein:

the multiport network device is configured to process the data packets by allocating network bandwidth to the received data packets based on the content type.

10. The computer network of claim 1, wherein:

the associated file attributes for each data packet are determined by the network-attached storage appliance.

11. The computer network of claim 10, wherein:

the generated data packets are generated by packetizing information contained in a file, and the associated file attributes are determined based on a file name identifying the file.

12. The computer network of claim 10, wherein:

the generated data packets are generated by packetizing information contained in a file, and the associated file attributes are determined based on a file name extension of the file.

5 13. The computer network of claim 1, further comprising:

a workstation connected to the network-attached storage appliance through the multiport network device, the workstation requesting a file from the network-attached storage appliance;

10 wherein generating the data packets includes generating data packets containing the requested file, and transmitting the generated data packets includes transmitting the generated data packets to the workstation requesting the file.

14. The computer network of claim 1, wherein:

15 the multiport network device stores one or more user defined packet policies, and is configured to perform an action from a user defined packet policy that matches the content descriptor.

15. The computer network of claim 1, wherein:

the multiport network device is configured to route the received data packet using a layer 2-3 switch.